| Inde | x of | Clain | ns |
|------|------|-------|----|
|      |      |       |    |

| Application No. | Applicant(s)     |  |
|-----------------|------------------|--|
| 10/604,580      | LOGAN, ANDREW J. |  |
| Examiner        | Art Unit         |  |
| Bryon P. Gehman | 3728             |  |

| √ | Rejected |  |
|---|----------|--|
| = | Allowed  |  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

| А | Appeal   |
|---|----------|
| 0 | Objected |

| Cla      | im   | Γ        |              |              | f            | Date         |          |          |          |              | 15    |
|----------|--|----------|--------------|--------------|--------------|--------------|----------|----------|----------|--------------|-------|
| - 016    |  |          |              |              | _            |              | Ĺ        |          |          |              |       |
| <u></u>  | Original   | 11/29/04 |              |              |              |              |          |          |          |              |       |
| Final    | įġ   | /29      |              |              |              |              |          |          |          |              |       |
| ш.       | ō  | 11       |              | İ            |              |              |          |          |          |              | 14, 4 |
|          |  | r .      |              |              |              | ⊢            |          | _        |          |              | 3     |
|          | 2  | 7        |              |              | _            | ┝            |          |          |          |              |       |
|          | 2  | 1        |              | -            |              | H            |          | -        |          | ,            |       |
|          | 1<br>2<br>3<br>4<br>5<br>6                         | H        |              | -            |              | -            | -        | _        |          |              |       |
|          | 4 -  | H        |              |              | -            | -            |          | -        | -        |              |       |
|          | 2  | ╀        |              |              |              | -            |          | _        | _        |              | 1     |
| _        | 7  | Н        | _            |              |              |              |          | -        |          |              |       |
|          | 7<br>8   |          | _            | -            | $\vdash$     |              |          | -        | -        |              |       |
|          | 9  | +        | H            | <del> </del> | $\vdash$     |              |          | <u> </u> | -        |              | ١.    |
|          | 10   | H        |              | $\vdash$     | -            |              |          |          |          |              |       |
| <u> </u> | 10   | H        | _            | -            |              | $\vdash$     | -        | _        | _        |              | ł     |
| -        | 10   | Н        |              | ⊢            |              | <del> </del> | <u> </u> |          | _        | -            | 1     |
|          | 12   | +        | <u> </u>     | -            | -            | -            |          | -        |          |              | ł     |
|          | 13   | H        | -            |              |              | 1            | _        | -        |          | -            | 1     |
|          | 14   | Н        | <u> </u>     |              | ⊢            | ╁            | $\vdash$ | -        |          |              | -     |
|          | 15   | H        |              |              |              | _            | -        |          |          |              | ┨     |
|          | 10   | 1        |              | -            | <del> </del> | ┝            | -        | $\vdash$ | -        |              | ł     |
| <u> </u> | 17   | ١.,      | ⊢            |              |              |              | -        | $\vdash$ |          | _            | 1     |
| -        | 10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18 | Y        | ļ            | ⊢            |              |              | H        |          |          |              | ┨     |
|          | 19   | 7        | <u> </u>     | ├            |              | -            | ļ        | ₩        |          | <del> </del> | 1     |
| -        | 20   | -        | _            | ├-           | <u> </u>     |              |          | <u> </u> |          | ├—           | ┨ .   |
|          | 21   | ļ.,      | 1            | -            | ├            | ╄            | <u> </u> | ⊢        |          | -            | ١.    |
|          | 22   | <u> </u> | <u> </u>     | ļ            | ⊢            | ┼            | ļ        | ⊢        |          | _            | 1     |
|          | 23<br>24   |          | -            | ļ            | ├_           |              | <u> </u> | ┢        |          | -            | ŀ     |
|          | 24   | ļ.—      |              |              | ┞            | ├            | <u> </u> | ├-       | -        | <u> </u>     | - 3   |
|          | 25   | $\vdash$ | -            | <del> </del> | ╄            | -            | <u> </u> |          |          |              | -     |
| -        | 26<br>27<br>28                                     |          | ├            | <del> </del> |              |              |          | -        | -        | ⊢            | 1     |
| <u> </u> | 27   |          | <u> </u>     | <u> </u>     | ļ            | ┢            | ┝        | ⊢        | ⊢        | -            | ╢     |
| <u> </u> | 28   | ┢        | -            | -            | ├-           | $\vdash$     | $\vdash$ | ├        | ┢        | ├            | ┨     |
|          | 29   |          | $\vdash$     | -            | -            | -            |          | ┝        | -        | 1            | -     |
| ļ        | 30   | $\vdash$ | ├—           |              | ⊢            | ┼            | -        |          | 1        | -            | 1     |
| -        | 31<br>32<br>33                                     | ╀        | <del> </del> | ŀ-           | -            | -            | 1        | ┼        | -        | ├-           | ┨     |
| <u> </u> | 32   | -        | ⊢            | ┾            |              | $\vdash$     | ļ        |          |          | -            | 1.,   |
|          | 33   | $\vdash$ | ⊢            | ╀            | ⊢            | <del> </del> |          | ļ        | ┢        | ├            | -     |
| -        | 34<br>35   |          | <del> </del> | ╁            | ┼            | ╁            | ┼        | -        | -        | -            | 1     |
|          | 35   | +-       | -            | +            | ╁            | -            | $\vdash$ |          | ⊢        | ├            | -     |
|          | 36<br>37   | -        |              | $\vdash$     | -            | ╄            | ├        | ⊢        | +-       |              | ┨.    |
| <u> </u> | 38   | +        | -            | ⊢            | +            | ╆            | -        | +        | ├-       | $\vdash$     | -     |
|          | 39   | ╁        | ╁            |              | ╁            | +-           | $\vdash$ | ╁┈       |          | ┼            | ┨     |
| -        | 40   | +        | ├-           | +            | ┼            | +            | +        | ╁        | -        | ┼-           | -     |
| -        |  | +        | ╁            | ╁            |              | +            | ╀        | $\vdash$ | ┼        | ┼            | ╣     |
| -        | 41   | +        | +            | +            | $\vdash$     | +            | +        | +-       |          | 1            | 1     |
|          | 42   | +        | +-           | +            | +            | +            | +        | +        | +-       | +-           | 4     |
| -        |  | +-       | +            | +            | ╁            | +-           | ╀        | +        | $\vdash$ | $\vdash$     | 1     |
| -        | 44   | +        | +            | +            | ╀            | +            | +        | +        | $\vdash$ | 1            | -     |
|          | 45   | +        | +            | ╁            | +            | +            | ╁        | +        | ╁╾       | +            |       |
|          | 46   | +        | +-           | +            | +            | +            | +        | +-       | +-       | +            | 4     |
| <u> </u> | 47   | +        | +-           | +            | +-           | +            | +        | ╁        | +-       | ╁            | +     |
| -        | 48   | +        | +            | +            | +            | +            | +-       | +        | +        | +            | - -   |
|          | 49   | +-       | +            | +            | $\vdash$     | +            | +        | +        | +-       | +-           | 4.    |

|    | Claim    |          | Date     |              |          |          |           |              |              |           |          | ò   |
|----|----------|----------|----------|--------------|----------|----------|-----------|--------------|--------------|-----------|----------|-----|
|    | Final    | Original |          |              |          |          |           |              |              |           |          |     |
|    |          | . 1      |          | -            | _        |          |           |              |              | -         | _        | H   |
|    |          | 51<br>52 | _        |              |          | _        | -         |              |              |           | _        |     |
|    |          | 53       | —        |              |          |          |           | $\vdash$     | $\vdash$     |           |          |     |
|    |          | 54       |          | $\vdash$     | -        |          | $\vdash$  | $\vdash$     |              | 1         |          |     |
| ij |          | 54<br>55 |          | Η.           |          |          | $\vdash$  | <del> </del> |              |           |          | È   |
|    |          | 56       |          |              |          |          |           |              |              |           |          |     |
|    |          | 57       |          |              |          |          | -         | $\vdash$     |              |           |          |     |
|    | -        | 58       |          |              |          |          |           | i            |              |           |          |     |
|    |          | 59       |          |              | T        |          |           |              |              |           |          |     |
|    |          | 60       |          |              |          |          |           |              |              |           |          |     |
|    |          | 61       |          |              |          |          |           |              |              |           |          |     |
|    |          | 62       |          |              |          |          |           |              |              |           |          |     |
|    |          | 62<br>63 |          |              |          |          |           |              |              |           |          |     |
|    |          | 64       |          |              |          |          |           |              |              |           |          |     |
|    |          | 65       |          |              |          |          |           | <u> </u>     |              |           |          |     |
|    |          | 66       |          |              |          |          |           |              | L            |           |          |     |
|    |          | 67<br>68 |          |              |          |          | <u> </u>  |              |              |           |          |     |
|    |          | 68       |          |              |          | <u> </u> |           | L            |              |           |          |     |
|    |          | 69       |          |              |          |          |           |              |              |           |          |     |
|    |          | 70<br>71 |          |              | <u> </u> |          |           | <u> </u>     | $oxed{oxed}$ |           |          | ļ,: |
|    |          | 71       |          | L            | Ŀ        | L.       |           |              | L            |           |          |     |
|    |          | 72       |          | <u></u>      | <u> </u> | L.       |           |              |              |           |          |     |
|    |          | 73       |          | L            | <u> </u> |          |           |              | ╙            |           |          |     |
|    |          | 74       | ᆫ        | ļ            |          | L        | ļ         | _            | ļ            |           |          | ŀ   |
|    |          | 75<br>76 | <u> </u> |              | <u> </u> | ļ        | _         | 上            | _            |           |          |     |
| 4. |          | 76       |          | _            | ╄        | <u> </u> | $\perp$   | <u> </u>     | _            | _         |          |     |
|    |          | 77       | _        | <u> </u>     | ↓_       | 1        | ļ         | ┡            |              |           |          | િ   |
|    |          | 78<br>79 |          | <u> </u>     | ┡        | <u> </u> | ļ         | _            | ļ            |           |          |     |
| -: | ļ        | 79       | L        | <del> </del> | -        | ļ        | ┞         |              | ₩            |           |          | ١.  |
|    | <b>_</b> | 80       | ļ        | ⊢            |          | ļ        | ļ         | <u> </u>     | ļ.,.         | Н         | _        |     |
|    | <u> </u> | 81       | ├        | -            |          | ⊢        | ┼         | ⊢            | <del>↓</del> | $\vdash$  | -        | ŀ   |
|    |          | 82       | ⊢        | +            | $\vdash$ |          | ╁         | }-           |              | -         |          | ł   |
| ٠. | <b>_</b> | 83<br>84 |          | -            | ╁        | ┢        | +-        | ┼-           | +            | $\vdash$  |          | ŀ   |
| Ċ  | <u> </u> | 85       | ╁        | ╀            | ╁        |          |           | ╁─           | 1            | -         | _        | 1   |
|    | <u> </u> | 86       | ├        | $\vdash$     | +        | $\vdash$ | ╁─        | +            | ╁            | $\vdash$  |          | ١.  |
|    |          | 87       | ┢        | ╁            | +        | ╁╌       | $\vdash$  | ╁            | ┼            |           | ┢        | 1   |
|    |          | 88       | -        | +            | -        | $\vdash$ | +-        | +            | +            |           | -        | 1   |
|    | $\vdash$ | 89       | ╁╴       | +            | +        | ╁        | 1         | -            | H            | $\vdash$  | $\vdash$ | 1   |
| 5  | <b> </b> | 90       | $\vdash$ | 1            | +        | +        | +         | 十            | +            | $\dagger$ |          | 1   |
|    |          | 91       | 1        | +            | +        | ╁╌       | 十         | +-           | +            | -         |          | t   |
|    |          | 92       | ╁╌       | +            | +        | +        | +         | 1            | T            | T         | ┢        | 1   |
|    |          | 93       | t        | ╁╴           | 1-       | T        | +-        | +-           | 1            | $\vdash$  | <b>!</b> | 1   |
|    |          | 94       |          | $\dagger$    | +        | $\vdash$ | Ť         | †            | 1            |           |          | 1   |
|    | -        | 95       | T        | 1            | $\top$   | T        | 十         | $\top$       | 1            | $\top$    | $\vdash$ | 1   |
| ÷  | 1        | 96       | T        | $\dagger$    | +        | T        | †-        | 1            | 1            | T         | Г        | 1   |
|    |          | 97       | T        | †            | T        | t        | 1         | T            | 1            | T         | Г        | 1.  |
|    |          | 98       | T        |              | 1        | t        | $\dagger$ | $\top$       | 1            | 1         | Г        | 1   |
|    |          | 99       | T        | 1            | 1        | 1        | $\top$    | 1            | 1            |           | Γ        | 1   |
| ď. |          | 100      | $t^-$    | 1-           | +        | +        | +         | 1-           | T            | T         | 1        | 1   |

| Cli      | aim        |           |          |              |              | Date     |              |              |  |           |  |
|----------|------------|-----------|----------|--------------|--------------|----------|--------------|--------------|--|-----------|--|
| Final    | Original   |           |          |              |              |          |              |              |  |           |  |
|          | 101        |           |          |              |              |          |              |              |  | $\exists$ |  |
|          | 102        |           |          |              |              |          |              |              |  |           |  |
|          | 103        |           |          |              |              |          |              |              |  |           |  |
| <u> </u> | 104        |           |          |              |              | _        |              |              |  |           |  |
| ļ        | 105        |           |          |              |              | _        | <u> </u>     |              |  | _         |  |
| <u> </u> | 106        | _         |          | _            |              |          | ļ            |              |  | $\dashv$  |  |
|          | 107<br>108 |           |          |              |              | <u> </u> | -            |              |  | $\dashv$  |  |
|          | 108        |           | -        |              |              |          | _            |              |  | $\dashv$  |  |
| -        | 110        | _         | $\vdash$ |              |              |          |              |              |  | $\neg$    |  |
| <u> </u> | 111        |           | H        | $\vdash$     | H            | -        |              | $\vdash$     |  | $\Box$    |  |
|          | 112        |           | Г        | T            |              |          |              |              |  | П         |  |
|          | 113        |           | L        |              |              |          |              |              |  |           |  |
|          | 114        |           |          |              |              |          |              |              |  |           |  |
|          | 115        |           |          |              | L.           |          |              | <u> </u>     |  | Ш         |  |
|          | 116        |           | _        | ļ            | <u> </u>     | _        | ļ            |              |  | $\sqcup$  |  |
| <u> </u> | 117        |           | ļ        | ļ            | ⊨            | <u> </u> | <u> </u>     | ⊢            |  | Н         |  |
| 1        | 118        | _         |          | _            |              | -        | ├            |              |  | Н         |  |
|          | 119        | $\vdash$  | _        |              |              | ├        |              | ⊢            | ├  | -         |  |
|          | 120<br>121 | ┢         |          |              |              | -        | <del> </del> | ┢            |  | H         |  |
| -        | 122        | $\vdash$  | ╌        | $\vdash$     | $\vdash$     |          |              | ├            | <del>                                     </del> | H         |  |
| 1        | 123        | -         | -        | +            |              | -        | <u> </u>     | <del> </del> | $\vdash$   | H         |  |
|          | 124        | -         |          |              | T            |          |              | <b>†</b>     |  | П         |  |
|          | 125<br>126 |           |          |              |              |          |              |              |  |           |  |
|          | 126        |           |          |              |              |          |              |              |  |           |  |
|          | 127        |           | L        | ļ            |              | <u> </u> |              |              | <u> </u>   | Ш         |  |
|          | 128<br>129 | ⊢         | ļ        | _            | _            | ļ        | _            | L            | <u> </u>   | Н         |  |
|          | 129        | ├         | -        | <del> </del> | ├            | 1        | ┢            | -            | ⊬  | $\vdash$  |  |
|          | 130<br>131 |           |          |              | ├-           | ┼        | $\vdash$     | ⊢            | -  | Н         |  |
| -        | 132        | ┢         | ┼─       |              | <del> </del> | -        | t            |              | -  | H         |  |
|          | 133        | $\vdash$  | H        | 1            |              | T        | ╁            | ╁            | <u> </u>   | $\vdash$  |  |
|          | 133<br>134 |           | Т        | T            |              | T        | T            |              |  |           |  |
|          | 135        |           |          |              |              |          |              |              |  |           |  |
|          | 136        |           |          |              |              |          |              | L            | ļ  | Ш         |  |
|          | 137        | <u> </u>  | <u> </u> | _            | 1            | 1        | $\perp$      | $\perp$      | -  | $\sqcup$  |  |
| ļ        | 138        | <u> </u>  | ╄        | -            | <b>├</b>     | ┞        | -            | ├-           | ⊢  | $\sqcup$  |  |
| -        | 139        | ╀         | -        | +            | ╀            | ┼        | -            | ┿            | $\vdash$   | $\vdash$  |  |
| -        | 140<br>141 | +         | +-       | +-           | $\vdash$     | $\vdash$ | +-           | +-           | -  | $\vdash$  |  |
| :        | 142        | +         | +-       | +            | H            | +        | +            | Ė            | +  | +-        |  |
| -        | 143        | T         | T        | +            | T            | +        | t            | +            | 1  | $\Box$    |  |
|          | 144        | $\dagger$ | T        | +            |              | t        |              | 1            | T  | $\sqcap$  |  |
|          | 145        |           |          |              |              |          |              |              |  |           |  |
|          | 146        |           |          |              |              |          |              |              |  |           |  |
|          | 147        | L         | L        |              | L            | L        | L            |              | 1  |           |  |
| <u> </u> | 148        | 1         | 1        | $\perp$      | _            | 1        | $\perp$      | 1            | 1  | $\perp$   |  |
| -        | 149        | $\vdash$  | +        | +            |              | +        | +            | +            | +  | +-        |  |
|          | 150        | 1_        |          |              | _            | J        | 1_           | L            | ⊥_   | 1         |  |